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THE GUN;
AND
HOW TO USE IT.

BY
JOHN B. JOHNSON.

Second Edition, Revised and Enlarged.

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PREFACE.

A SECOND edition of this little work being called for, the opportunity has been taken of revising and enlarging it. Of late years there have been a few new inventions, with some improvements, in guns; these are now added to the present edition, and their relative merits and demerits discussed. The task of revision has been carefully performed, and the book is now offered to the public in as complete a form as possible.

Besides numerous other additions in various parts of the work, the pages on "*Breech-loading Guns*," and "*Wild-fowl Shooting*," are entirely new; as are also several other subjects with less conspicuous headings. Throughout the work the aim has been to convey in the fewest words, and upon the soundest principles, the whole theory of the Gun, with the art of using it to the greatest advantage upon the feathered tribe, and least danger to the sportsman, his companions, and dogs; and it is confidently asserted that the veriest tyro, by a careful study of the principles laid down in the following pages, combined with diligent practice, may, in a very few weeks become skilled in the use of the Gun, and be enabled to bag his game with pleasure and satisfaction.

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THE GUN ;

AND HOW TO USE IT.

IN the selection of a gun the sportsman must consider well what weight he can conveniently carry throughout a long and fatiguing day. He must make ample allowance also for the rough and uneven ground he has to traverse, and for the extra toil of surmounting awkward and often almost-impracticable fences, where every ounce of unnecessary weight will tell in the sum total of fatigue. It cannot be too strongly impressed on the mind, and the observation may most likely be repeated in the course of these pages, that a gun which is handy and pleasant to bring up to the shoulder in a gunmaker's shop, may, from being over heavy, become almost unmanageable in the field, when the body becomes uneasy from exertion, or the temper a little ruffled ; perhaps

owing to disappointment in diversion, whether from scarcity or wildness of game, unruly dogs, or any other cause.

As all men are not possessed of the same degree of physical power, no specific rule can be laid down as to the proper weight of a fowling-piece. Above seven pounds and a-half will, on the average, be found too heavy ; and less than six and three-quarters too light. A gun of seven and a-half pounds will admit of a 12-gauge or bore ; one of six and three-quarters should not exceed a 16-bore. Great difference of opinion will be found to exist as to the relative merits of wide and narrow barrels. My own opinion is that a wide bore is more to be depended on for carrying its shot evenly than a narrow one ; whilst it is a certain fact that a narrow bore will drive harder than a wide one, provided there be the same weight of metal in each, and the same charge of powder and shot used in loading. Safety is much to be desired in so dangerous an implement as a gun ; and on that score narrow barrels are preferable.

Proceeding, in detail, to consider the gun and its various component parts, I shall commence with

GUN-STOCKS.

THE gun-stock is of more importance than any other part of the fowling-piece. The most desirable kind of wood for the purpose is walnut. Maple is occasionally used, and also ash; but walnut is preferable to either. There are but few handsome stocks in the largest walnut tree, and still fewer really good ones. Beauty and serviceable qualities in stocks are combined in those which are cut from the root, and from the parts where the large branches join the butt of the tree: from those parts only should stocks for superior guns be selected. With a variegated or mottled butt, the wood may be so cut as to have a perfectly straight grain in the hand, and where the locks, break-off, &c., are let in. This is a matter of essential consequence; as, if the grain run cross in these, the weakest points of the stock, the slightest blow, from a fall or any other accidental circumstance in the field, will be liable to cause a fracture, which can only be remedied by a new stock.

Seven years, at least, must elapse from the

time the wood is cut to the size for the gun-maker to commence his operations, before it will be free from sap and fit for use; and where dryness and soundness are of such paramount importance, artificial means for preparing the wood more quickly for the workman are by no means to be recommended. From this it will appear that a bit of choice walnut, suitable to make a gun-stock of lasting properties and to give satisfaction to the party purchasing or using it, is not a very *cheap* article. On one occasion I remember £300 being paid for three hundred gun-stocks in one lot. Of these, one-fourth were unfit for superior guns; and the remainder had to be kept four or five years before they were ready for use, or had attained that state when further drying or shrinking would be most unlikely. During the period of drying, if there be an unsound place in the wood, it will most likely show itself by discoloration, and by being penetrable to the thumb-nail. Should such a thing be detected, of course the wood will not be used by an honest gunmaker for a gun he intends to recommend.

No labour on the part of the most skilful workman can be anything but lost—no work,

however good, can remain so, if the gun-stock shrinks. The fittings, filed to less than a hair's-breadth, *must* become untrue; and when this is the case, the recoil in the act of firing soon renders the gun rickety and unpleasant to use, if not absolutely unsafe; therefore the sooner the bad stock is replaced by a good one the better.

It will be seen, then, how necessary it is, in the selection of a gun, to apply to a respectable maker—to one who has a reputation to maintain, and who is, moreover, possessed of capital sufficient to purchase his materials in such a manner that he has no need to take another's word for their soundness and durability, but can vouch for them himself. The man who can afford to purchase a good article, but is too niggardly to give a reasonable price for it, deserves to lose a finger or two to cure him of his miserly propensities. Guns are exposed for sale in London, and in many provincial towns, at very little more than has been shown to be the actual prime cost of a good walnut stock, rough from the saw! It cannot be supposed that such made-up things do not jeopardise to a great extent the eyes and fingers of those who use them!

Birmingham is the greatest manufactory for guns in the world ; but the best workmen are generally lured to the metropolis by the prospect of high wages. Nevertheless, as good work may be turned out in the former place, if proper materials be used to work upon, as in the latter ; simply because the manufacture of guns in Birmingham is divided into a greater number of hands than it can possibly be in any single gunmaker's shop. Fitting the break-off alone is a business in Birmingham ; however, as the work in the town in question is principally made for sale, at a low price, and not to order, self-interest in the maker (who seldom puts his own name upon his productions) will naturally perhaps lead him to make use of materials which would be, and likely enough have been, rejected by respectable metropolitan as well as provincial establishments.

There is little doubt but engraving guns, browning the barrels, hardening the lock-plates, &c., can be better executed in Birmingham than elsewhere.

That good guns are made in the provinces there can be no doubt. Provincial gun-makers generally purchase the barrels in an unfinished

state rough from the foundry ; these they have in metals of various qualities ; for the best of them they pay a high price ; they have then to finish the barrels according to their best skill, and have their names engraven on them, if a good article. It is often the extra finish, such as ornamental engraving on the lock-plates, silver or gold mountings on the stocks, &c., that add very much to the price of a gun. A plain article of the very best materials may be had at one-third less than a highly finished and exquisitely ornamented one.

It is far preferable to purchase a second-hand gun made by a first-rate maker than a new gun from an inferior one. Second-hand articles are readily met with in London at many respectable pawnbrokers. For my own part, I would choose a gun which had been made three or four years in preference to a new one ; fair usage for that space will not injure a well-made article ; and it is very easy to ascertain whether any further deterioration than loss of polish has taken place.

If a new gun be decided on, it would be well if the purchaser could see it occasionally during the process of manufacture. The mounting can

then be made exactly to suit him, and any attempt to palm off a made-up-for-sale thing completely frustrated. It will be well to bear in mind that a gun is a very different article to handle in a gunmaker's shop to what it is on a steep mountain breast. The weight which can be managed easily in the former becomes intolerable on the latter ; and it will be found also that a stock which does not appear at all too long at a gunmaker's counter, is inconveniently so in the field or in cover.

As age advances—as the body increases in bulk in middle life, or the shoulders become stiff when the meridian is past, it will sometimes be found advantageous to shorten the gun-stock. I am now a quintogenarian, and have had my gun-stock shortened twice, a quarter of an inch each time ; and the alteration has been satisfactory. It is not uncommon for sportsmen to suppose that their guns *go off their shooting* ; an imaginary defect, which will most likely be remedied by adopting the plan just pointed out.

The bend of the stock will of course be made to suit the person using the gun ; nor can much instruction be given in writing on the subject.

If, on being placed at the shoulder, the eye is brought on a level with the barrel from breech to muzzle at once, the proper bend will have been attained ; and this can only be ascertained by actual trial. But the disposal of weight in the barrel, or a lighter or heavier stock than ordinary, will have considerable influence in the mounting of a fowling-piece. All who have written on the subject recommend a stock rather straight than otherwise. My own experience will not allow me to coincide in this. If the stock be so straight that the check cannot *conveniently* and *without effort* be brought to a level with the barrel from muzzle to breech, the stock is *too straight*. It is said, also, that birds are generally rising when fired at ; this may be true as far as relates to partridges and pheasants, but decidedly wrong as to woodcocks ; and, in a great measure, to moor game as well. Any game, when flushed on a hill, drops in flight as it makes for the valley ; and these are the shots which young sportsmen so often miss by firing too high.

RAMRODS AND LOADING RODS.

It has been the fashion of late years to make the ramrod exceedingly clumsy and heavy—as much as seven or eight ounces in weight. This is unnecessary ; the weight is much better in the barrels ; and if proper wadding be used, the gun kept clean, and common care exercised in loading, the ramrod is not apt to break. Besides, a heavy ramrod, if not fitted tight to the stock and barrel, is very apt to knock off the catch which secures it in its position under the barrels, and, if of unreasonable thickness, to force off the pipes. It must be borne in mind that a ramrod was never intended to beat dogs with. The best kind of wood is termed *snake wood* ; the beautiful mottle it displays when polished giving it the name. It is tough and elastic, as well as very stiff ; is the heart of a large tree, and a good deal used by Indians in making their bows. The beauty of a ramrod soon disappears when much used, owing to the action of the gunpowder, which produces a permanent black colour.

Loading rods are now in such general use,

that since the first edition of this work was published, one half of English sportsmen use them in preference to ramrods, consequently many modernised guns have no fittings for a ramrod, and certainly the barrels look very much neater without them; it is a matter of taste and opinion as to which of the two is preferable; the loading rod has its advantages as well as its disadvantages. It is easier and quicker loading with the latter, but it has to be carried, dangling from a leather socket attached to the shooting jacket; a position which, though not inconvenient at a pigeon-shooting match, is not at all times desirable in the field.

GUN-LOCKS.

THERE are various forms of gun-locks, each having its admirers. The one termed the back-action lock perhaps admits of the gun being put together more strongly and securely than any other plan. It is not generally admired; indeed it is altogether discountenanced by eminent sportsmen, metropolitan as well as provincial. The grounds of objection are stated to be, that the action of the back-work lock is not so

pleasant as that of the lock where the mainspring is made to work in the fore-end of the stock. Certainly this is the case, but the difference is so very trifling that it requires the most exquisite sense of touch to discover the difference; while the advantages gained by the back-work lock are, increased length of mainspring—consequently with less liability to break—and more security from wet penetrating to the interior of the works, owing to the lock-plate being almost altogether surrounded by wood, and securely imbedded in a part of the stock less liable than any other to be exposed to wet, from its being protected in a great measure by the arm or hand when carried in the field. But, with the back-action lock, the stock must be made with a trifling slope (from where the break-off joins the barrel) backwards, which is a very great defect, inasmuch as it renders a scroll-guard necessary, or the grasp of the hand in the act of firing is not so firm as it ought to be. I have, myself, no objection to the scroll-guard, though it is deemed unsightly by many; those who object to it will do well to reject the back-work lock.

The bar-lock is almost too well known to

require description. The plate is neatly fitted to a bar left at the breech-end of the barrel (whence the term bar-lock). It is more pervious to wet than the lock described in the last paragraph ; but its action, as before stated, is supposed to be more pleasant. The great advantage of this form of lock is, that it admits of the stock being so formed that the grasp of the hand tightens naturally in the act of raising the gun to the shoulder,—an advantage so great, especially to those who object to the unsightly appearance of the scroll-guard, that, unless the sportsman braves all kinds of weather, may fairly entitle it to be preferred to the back-work lock. It certainly makes up a much more handsome gun.

The next form of lock to be noticed is that known in the trade, I believe, as Westley Richards' plan. It has an excellent sponsor,—if that goes for anything,—but differs from the bar-lock, inasmuch as the fore-end of the lock-plate does not fit up to the barrel, though the mainspring works in the fore-end of the stock. The lock-plate is fitted so that it is completely surrounded by the wood of the stock, and it is, therefore, impossible that wet can penetrate to

the works. It admits of the stock being made to tighten in the hand, as in the case of the bar-lock ; but, unfortunately, it is liable to one great objection,—the wood between the lock-plate and the barrel is so very thin that it is apt to break and splinter with the recoil of the gun when fired. Were it not for this circumstance, the plan would have my unqualified approval, as it certainly makes up the handsomest gun that has hitherto been offered to the sporting world. Of course, a first-rate seasoned stock, such as is described under the head GUN-STOCK, will go far to obviate the defect spoken of, and if a pair of heavy barrels are used, they will not cause so much shaking of the stock as lighter ones, and then this plan of lock may be ventured upon without apprehension.

The manufacture of gun-locks is, for the most part, confined to Birmingham and the neighbourhood,—those by Brazier, of Wolverhampton, having the highest reputation,—and London. Very few provincial makers now keep lock-filers, the business of lock-filing, being so ramified in the locality just mentioned, rendering these articles not only cheaper, but considerably better, than most of those produced

in small establishments. A master of his craft can easily distinguish a good from a bad lock, upon examination; it is one of the mysteries of his trade, into which the sportsman need not penetrate.

There is no part of the gun, however, which is of more essential consequence than the lock, nor none on which safety to the shooter or his companions more completely depends. Cleanliness in the interior, cannot be too strongly enjoined; but frequent cleaning is not necessary, unless the gun has been exposed to rain. The soft, pleasant action of the cock, and lively click of the *sear*, as it falls into the *tumbler*, should be carefully attended to; when these are not satisfactory, the lock should be taken off and examined.

TO TAKE THE GUN-LOCK TO PIECES.

EVERY sportsman ought to be able to take his gun-lock to pieces, for the purpose of cleaning it, without damaging the works, or injuring his fingers. The most approved method is as follows:—

First, put the lock at full-cock, then apply

the spring-cramp to the mainspring ; turn the screw of the cramp cautiously, so as not to nip it too close, for fear of breaking or weakening it. Having cramped it sufficiently, let down the cock, and the mainspring may be removed without any force. If the sportsman wishes to avoid scratching the mainspring, he should see that the claws of the spring-cramp are shod with leather. It should be borne in mind, that the mainspring is the first thing to be removed, in taking a gun-lock to pieces, and the last thing to be replaced on putting it together again.

The bridle may then be taken off by removing the three screws which hold it to the lock.

The scear-spring may be removed by half-cocking, and pressing the forepart of the lock against some solid substance placed in front of the operator ; then, by applying the thumb to the cock and pushing it forward, whilst, with the other thumb and fore-finger, the scear and scear-spring must be pressed, that the scear-screw may be removed, and the spring will then drop out.

The cock or hammer may next be taken off,

by simply tapping it on the inside, after removing the screw which holds it to the lock.

The tumbler may then be immediately taken out.

During the operations, be careful to note the screws, and the holes to which they belong.

Having taken the lock to pieces, every particle should be well wiped and cleaned with a small brush and dry wash-leather; they should then be lightly rubbed over with an oiled rag, saturated with the purest salad or olive oil.

TO PUT THE GUN-LOCK TOGETHER.

FIRST, replace the tumbler, and screw on the cock. Then screw on the scear-spring, put the bridle in its place, and screw in the two upper screws. Then put in the scear (and this is the puzzling part to a tyro), to do which, press the scear and scear-spring together with the fore-finger and thumb, and, at the same time, push the cock forward, and a clear passage will be opened for the scear-screw, which may then be turned in.

The cock should then be let down, in order

that the mainspring may be replaced. To do which, cramp the mainspring carefully, to the same extent as before; and, whilst in the cramp, hook the claw to the swivel, and gently move the heel of the spring into its proper position on the lock-plate. Then, by unscrewing the cramp, and releasing the mainspring, the lock will be in perfect force.

A little pure olive oil should then be applied, with a feather, to the tumbler and other parts where there may be friction.

If the lock has been long neglected, and become very dirty, the best plan is to boil it for ten or fifteen minutes in clean water; this effectually removes all the dirty oil or other filthy matter; the heat retained in the metal soon renders it perfectly dry, and oil, plentifully applied, will penetrate into all the workings, lubricate them sufficiently, and preserve them from rust for weeks or months to come.

The form of the interior of the lock, it is best to leave to the gunmaker, who, on account of his own reputation, will use that which he deems the best. It is a matter which depends a good deal upon fancy, the great object being to cut away as little as possible of the stock in

letting in the lock, and fixing the *bridle* firmly to the lock-plate for the *tumbler* to work in.

The form of the cocks, like the fashion of everything else, is continually altering, and may be safely left to the whim or caprice of the sportsman or the gunmaker.

TRIGGERS.

It may appear almost a waste of space to notice the triggers. Care should be taken to see that they are kept clean, and act freely under the influence of the *feather-spring* in the trigger-plate, and bear slightly upon the sear. The distance between them may be greater or less, according to the thickness of the shooter's finger. If, however, the trigger of the right-hand lock be too far forward, the *trigger-guard* will be apt to cut the middle-finger of the right hand, should the gun recoil much when fired.

SAFETY-GUARDS.

THE gun is a dangerous instrument, even in the most careful hands; anything, therefore,

which will contribute to prevent accident, in any way is desirable. On this account, a safety-guard, or more correctly speaking, a safety-bolt, which bolts the tumbler, and acts independently of the triggers, is well worthy of the shooter's attention, as being the most complete thing yet invented. It is patented by Mr. Thos. K. Baker, of Fleet Street, successor to Mortimer, St. James Street, and can be applied to old as well as to new guns. The advantages of the safety-guard are, that the gun may be carried at full cock throughout the day, and whether in getting over fences, or climbing steep hills, it is safe from explosion. Though bushes and twigs may catch the trigger, the safety-guard prevents the gun from going off unintentionally.

GUN BARRELS.

OF late years, a variety of different kinds of barrels have been offered to the notice of the public, designated by various names, as steel, *silver-steel*, &c. ; but none have hitherto been found to excel the old twisted stubbs. Some of the barrels made at the present day, under

new-named metals, are not unlike the Damascus barrels, which were fashionable some years ago. A superior barrel cannot be expected at a low price; and, though there are few of the commonest kind which will burst, if properly loaded and kept clean, too much care cannot be exercised in the selection of one for hard work and occasional neglect. A reasonable charge of powder, such as a man could fire from his shoulder without injury, will not burst a really good, sound barrel; but, unfortunately, it is impossible at all times to detect imperfections in the iron which are beneath the surface, and which are only made manifest by time. I am an advocate for short barrels, and would on no account exceed too feet six inches, preferring two feet four inches for the general purposes of a shoulder-gun.

If the barrels are made of the best materials, good iron and steel,—the weight of a pair of barrels twelve-gauge, or three-quarters of an inch bore, need not be more than four pounds and a half, or even an ounce or two less; an eleven-sixteenths, or fifteen-gauge, four pounds two ounces; whilst three pounds twelve ounces will be sufficient for a five-eighths bore. It

matters little, on the score of safety, how thin or light the muzzle-end, or upper part of the barrels, may be, provided the twelve inches next the breech are strong enough ; and for this the weights above mentioned will be found amply sufficient. Let it be borne in mind, however, that these proportions are for the very best materials only. Inferior twisted barrels, with an addition of some seven or eight ounces to the weights enumerated, may be perfectly safe ; but every ounce of unnecessary weight will tell in a long day's shooting. A gun of seven and three-quarter pounds is enough for a Hercules, with the addition of its charge.

Heavy barrels are invariably found to drive the shot much harder than light ones of the same bore ; but I think this is more than made up for by the increased quickness with which light ones may be handled. Moreover, if the patent wire cartridge be used, a greater degree of force is obtained with light barrels than can be had with the heaviest and loose shot.

The term *leading*, is often applied to gun barrels ; but I think it misapplied. The deposit at the bottom of the barrel, after repeated firing, will be found to proceed from the pow-

der. At all events, on one occasion, I collected rather better than an ounce of this deposit, but could not procure a grain of lead from it, on subjecting it to the action of fire. In cleaning barrels, cold water should be used in the first instance, and a pint or two of hot water poured down them when perfectly clean, the heat from which retained by the iron, will drive off any moisture which may remain, and facilitate the penetration of oil into the breech and touchhole. Oil should be plentifully applied. The wire scratch-brush is the most effectual instrument that can be used for removing the deposit termed *leading*; but the tyro must bear in mind, that it should never be used except the gun be perfectly dry and clean. In the absence of a scratch-brush, a piece of lead cast to fit the bore of the gun, and to screw into the cleaning-rod, will answer the same purpose; the latter may be used with a little fine emery and oil, or Bristol brick and oil.

The browning of barrels is a matter of little moment, as the brown colour soon wears off. It hides rust,—a rather doubtful recommendation. Of course, a new gun should be browned; subsequent operations of the kind are unneces-

sary, as the barrel will never afterwards become so bright as to be unpleasant to use.

THE BREECH.

VARIOUS have been the changes this part of the gun has undergone, without any one form having been found very superior to another. The form of the breech is of little importance, so long as the chamber of communication with the cylinder be clear and open, so as to afford instant ignition to the whole charge of powder.

It is well to have the breeches taken out and examined by a gunsmith, at the commencement and termination of each season, which affords an opportunity of examining the barrels also. Let it be borne in mind that a country blacksmith is not the man to employ on such a job. One of the best pair of barrels I ever saw had the elevated rib wrenched off, and their appearance totally spoiled, by entrusting them to a man of this description.

NIPPLES AND CAP-FITTING.

As many guns, excellent in every other particular, are defective in this very important point, the few subjoined remarks upon the subject may not be superfluous, particularly as the fitting of the copper caps does not always come under the notice of the gunsmith.

Nipples are often made with a large, flat head, and a small orifice at the top, having a number of small rings (intended to hold the cap on) turned round the outside of the cone. The objections to a nipple of this description are manifold. In using a cap made with strong copper, it requires considerable pressure to place the cap upon the nipple, and it is very seldom got into its place; consequently, upon drawing the trigger, the hammer of the gun has the resistance of the copper to overcome before bringing the composition in the cap into contact with the nipple, and when exploded upon such a nipple, four-fifths of the detonating flame escape, and flash outside the gun, thereby causing a very small volume of it to pass down the orifice of the nipple, and, should the cham-

bers of the gun be foul, from repeated firing, so as to prevent the free ingress of the gun-powder, a slow ignition, or "hang-fire," is the result.

Occasionally it happens (particularly in using thick copper caps, made with three flanges), that the head of the nipple is so jammed into the top of the cap, that after the cap has exploded, the copper is left sticking firmly upon the nipple, from which it requires considerable force to remove it.

Or, as all caps are more or less cone-shaped in the inside, should the head of the nipple be very broad and flat, and the mainspring rather weak, the copper may come into contact with the edge of the nipple-head, and remain seated upon it, without the hammer having sufficient power left to explode the priming, and a "mis-fire" follows, although the cap may be of the very best quality.

A nipple formed as follows will be less likely to cause a misfire than any other shape:—

The head should be a little tapered from the cone of the nipple, and rather countersunk, leaving a thin rounded edge to first come in contact with the detonating powder; having

the orifice of the nipple well opened at the top, so as to allow the flame to enter freely ; and well opened at the bottom also. The cap should be sufficiently large to *drop* half way over the cone-shaped nipple, the base of which should fit and hold it firmly ; there should not be any rings upon the nipple to hurt the fingers and prevent the cap from sliding into its place, so as to be ready at once to answer to the blow of the hammer.

The mainspring should not draw less than fourteen pounds from the cock-head ; the stronger the blow that the hammer gives, in consistence with pleasant handling in cocking and uncocking the gun, the more rapid will be the ignition.

By having the nipple shaped as described, the percussion powder is ignited at the edge, which is all that a well-made cap requires ; and that portion of it which lies in the dome-shaped part of the copper, and is intended to flash down the nipple, is so confined that it will pass more than double the distance through the chamber of the gun, thereby blowing through any obstruction which may be in the way through foulness, and causing the gun to shoot sharply

and rapidly, where a badly-formed nipple and inferior cap would have missed fire.

All caps will fire best upon such a gun ; but those which are called metal-lined, central-fire, and double waterproof caps, are particularly constructed for guns of this description, and any party testing them with an *eprouvette*, having the nipples shaped as here described, would be struck with their superiority over the ordinary cap used with a badly-formed nipple, as the detonating flame will pass through a tube similar to the chamber of a gun, and ignite gunpowder with the greatest certainty and precision, placed five inches from the nipple upon which the cap explodes.

ELEVATED RIBS.

THIS is that portion of the raised metal which lies between the two barrels, and runs from the muzzle to the breech, the *sight* being placed on the muzzle-end of it.

I have no hesitation in recommending elevated ribs. Upon the theory that the shot falls a little, soon after leaving the gun, the effect of the laws of gravitation are counteracted by the adoption of the elevated rib.

THE BREAK-OFF.

ON the good fitting of the *break-off* depends, more than on anything else, the lasting quality of the gun. It is strongly fastened to the trigger-plate by two, and sometimes, if the locks have the back-action, with three screws, and combines with the trigger-plate to give strength and solidity to the part of the stock which joins the barrel, and contains the locks. If it be not properly fitted to the breeches, or into the stock, the gun is soon knocked to pieces by its own recoil.

The other component parts of a gun, such as heel-plate, tail-pipe, &c., may be left to the fancy of either gunmaker or sportsman.

THE CENTRAL-FIRE GUN.

MANY attempts have, from time to time, been made to discharge the percussion-gun by a central fire from the priming; that is, by the flame from the priming being driven directly into the centre of the breech from behind, and without its having to traverse any angle. These

attempts may now be said to be entirely successful ; but the advantages obtained are not so great as were at first anticipated.

There is no doubt whatever, that the nearer the priming can be brought to the gunpowder to be exploded the more instantaneous and rapid must be the discharge. The tube plan is, perhaps, the quickest of any ; but any mode of firing by percussion is quick enough. By shortening the distance which the cock has to traverse, from full-cock till it reaches the nipple, additional rapidity is gained ; but anything gained in this way is absolutely of no moment whatever. Copper-cap guns, as they are now made, have stood a forty years' test,—a sufficient proof of the estimation in which they are held. Such is the mighty inventive genius of the present age, that it would be bold to say they will not be surpassed ; hitherto, they stand unequalled.

BREECH-LOADING GUNS.

SINCE the publication of the first edition of this work, breech-loaders have been introduced by gunmakers in this country, with a confidence and boasting such as the present doubtful safety

and advantages of the invention do not warrant. The invention of breech-loading guns originated in France, and if the system could be so far perfected as to render breech-loaders as safe and effective as muzzle-loaders, the breech-loader would universally supersede all other guns ; but after the best skill of the most energetic and scientific gunmakers in the world have been brought to bear upon the subject, and after several years experience, it is well known that the breech-loading system is neither so safe nor so effective as the other. So that there seems to be no possibility of breech-loading guns being made to shoot with equal advantages to those which are loaded at the muzzle. The great desideratum in a gun, next to safety, is that of having the power of throwing the shot strong and close at the farthest distance. Whereas it has been proved to demonstration, that breech-loaders do not shoot so strong, so effectively, nor so far as muzzle-loaders ; and this too, though the breech-loader be charged with a $\frac{1}{4}$ rachm more powder than the muzzle-loader. A public test of the kind took place at Creorne last year, when one of the best breech-loaders was charged with 3 drachms powder

and $1\frac{1}{2}$ ounce shot, and fired at a target. A muzzle-loader, of the same sized bore as the breech-loader, was charged with $2\frac{3}{4}$ drachms powder and $1\frac{1}{2}$ ounce shot of the same size, and fired at a target at the same distance as the other. The results speak for themselves; they were as under—

Breech-loader 170 pellets in target, penetration, 19.

Muzzle-loader, 231 pellets in target penetration, 48.

Notwithstanding these well-known results, there are a few gun-makers (happily only a few) who have the effrontery to recommend breech-loaders as superior to all others. The reason is obvious: sportsmen like novelties, and are so led away with the flattering prospectus of the gunmakers, containing a long list of advantages to the breech-loading shooter, with beautiful engravings of the gun itself, that he, desirous of eclipsing his brother-sportsmen in the field, yields to the persuasions of the gunmaker, and, relying with confidence on his flattering tale, purchases the bauble, and hastens into the country, with delight and confidence beaming in his face. The gun shoots well at first; and, if it

be in the early part of the shooting season, the advantages to the breech-loader will be many. Partridges rise whilst his friend is loading at the muzzle, and the breech-loading sportsman thus obtains some four or five extra shots during the day, through the rapidity with which he is enabled to load. But let the breech-loader go out with the muzzle-loader in October or November, when partridges are wild, and the muzzle-loader will beat the other hollow, by hitting his birds harder, killing them further, and with greater precision. The breech-loading gun, by long usage, becomes the more dangerous, through the escape of gas at the joint, which it is impossible to avoid.

Among the advantages possessed by the breech-loader are, the ease, simplicity, and expedition, with which it may be charged, and it may be loaded whilst lying flat on the ground,—advantages of the highest consideration in military rifles. The barrels may be easily cleaned; the charge quickly drawn and another substituted, by simply drawing out the cartridge at the muzzle, and replacing it with another. Though, if, through accident, the sportsman strikes the muzzle of the breech-loader against

a bank or mound, and chokes the barrel (an occurrence by no means unusual), he has neither ramrod nor loading-rod to clear it, but must either cut a stick out of the fence, borrow a friend's ramrod, if one is near, or give up his sport altogether, if alone on a barren moor.

Among its advantages are those of dispensing with the necessity of carrying either powder-flask, shot-pouch, cap-holder, or gun-wads : but, in the place of all these, a cartridge-case must be slung across the shoulder by a strap, or worn as a belt, in which to carry the cartridges for the day's sport, and these are more fatiguing to the sportsman than all the other requisites for a long day's shooting with a muzzle-loader. The cartridge for the breech-loader includes the powder, shot, and cap, with the pin which explodes it ; so that there is the greatest danger in carrying them loose in the pocket,—a fall or a blow might instantly explode them. A cartridge-case, made upon the safest principles, with a separate division for each cartridge, is, therefore, an indispensable adjunct to the breech-loader. On reloading, it is necessary to draw out the discharged cartridge, before inserting a fresh one ; this, however, may be done in an

instant. Among other advantages possessed by the breech-loader, it is urged, that the rapidity with which successive shots may be made is alone a sufficient recommendation; but sportsmen know that a rapid succession of shots, with the same barrels is not always desirable. The metal soon becomes heated to danger, as with a muzzle-loader, in rook-shooting. Again, it is stated that the moisture forced down upon the powder by the wad, from the inside of the barrel, in loading at the muzzle, is obviated,—an advantage of so insignificant importance that it requires no comment, though it might be urged in favour of the muzzle-loader, because, notwithstanding the moisture and the waste of powder sticking to the inside of the barrel, the charge required for the muzzle-loader is $\frac{1}{4}$ drachm less than that for the breech-loader, and yet the muzzle-loader shoots the sharper. It only remains to add, that the cartridges required for the breech-loader render that gun a costly weapon to the sportsman, though, if he chooses, he can make the cartridges for his own use, by providing himself with a mould, caps, pins, and other apparatus. The gun itself becomes more costly than a muzzle-loader, through getting out

of order sooner at the joint, and the critical part where the gas escapes at the breech.

GUNPOWDER.

THE shooter cannot be too careful in the selection of this article. Good shooting depends more on the quality of the gunpowder than is generally imagined. To say nothing of the filth and feculent matter deposited by inferior powder, the corrosive gas caused by the explosion of which is seriously detrimental to the barrels of a gun, and may ultimately be productive of dangerous consequences, unless great attention be paid to cleaning. The principal object to be desired in gunpowder is cleanliness in burning, with the greatest possible strength in the smallest possible space, so as to insure the rapid ignition of the whole. The requisite degree of strength *may*, indeed, be derived from the commonest and coarsest powder if sufficient quantity be used ; but it stands to reason that a large mass will not ignite in a confined space like the inside of a gun-barrel so rapidly as a small quantity, nor will it be so completely consumed. Moreover, a large quantity of weak

powder will be apt to cause a lateral movement in the gun on firing (calculated to render the aim untrue), instead of the sharp recoil which should always be felt on the shoulder. It need hardly be said that good powder is more inflammable than bad ; consequently sooner burnt when in contact with fire. There is always a greater or a smaller portion thrown out of the barrel unconsumed, as may be ascertained by firing over snow ; and, therefore, good powder, being, as has been just stated, more inflammable than bad, is the less likely to be discharged unconsumed. More or less will also be thrown out according to the way in which it is fired. If powder in a gun-barrel be ignited from the top by dropping a bit of heated iron down the barrel, it will be more completely burnt than if fired with a cap from the touch-hole ; this I have repeatedly tried over snow. Such being the case, then, it is only reasonable to suppose, that if the priming could be made to communicate with the charge high up the barrel—indeed close to the place where it is separated from the shot by wadding, the powder would be more perfectly exploded.

It is all-important that powder should be

fresh. Age lessens its strength, and renders it less cleanly to use than when newly made ; and, of all things, it is well to avoid purchasing in a small town or village, where the article is not in extensive demand. It is advisable, too, to destroy old canisters, or at any rate to deface the labels, so as to prevent the selling of an inferior substitute for the good powder they originally contained : a system of cheating not unfrequently practised.

I once purchased some powder in the small town (Broughton-in-Furness) near to which I was a temporary resident, the powder being weak and most likely old, I found it necessary to increase the charge to a much larger measure than was pleasant to use of good powder.

Evenness of grain is a recommendation in gunpowder ; perhaps coarse grain may be preferable for damp weather ; but certainly the latter is more likely to be driven from the barrel unburnt than the finer kind ; and when the weather is so damp or wet as to affect gunpowder, the "*inglenook*" will be found more comfortable than the heathery moor.

POWDER-FLASKS.

A COPPER flask is preferable to any other. Many attempts have been made to render the powder in the flask safe in case of an accidental explosion of the charge in the act of loading. This desideratum, it is said, has now been accomplished, in the patent safety powder-flask, and if proper wadding be used, there is little danger to be apprehended. Gun accidents, when they do happen, will generally be found to have their origin in carelessness.

COPPER GUN-CAPS.

Good gun-caps, as well as safe ones, should be selected. Some of those of French manufacture are highly dangerous. (This subject is more fully treated of under the head NIPPLES AND CAP FITTING, to which the reader is referred.) The danger to be apprehended from bad or common gun-caps is, that though they explode the powder in the nipple of the gun, they fly into pieces; and one small fragment of the copper, striking the eye of the sportsman, might blind him for ever.

THE CAP-CHARGER.

THIS is a very useful invention, and will be found convenient on a cold morning, particularly when the hands and fingers are so numbed with cold as to prevent the sportsman from finding and feeling in his waistcoat pocket for so small an article as a single gun-cap. In the cap-charger he has something to lay hold of ; and if his hands are ever so cold or thickly coated with gloves, he is enabled, in an instant, to cap his gun without inconvenience.

SHOT.

THERE exists great difference of opinion respecting the size of shot best calculated for various kinds of game, some preferring large, others small ; from which it may be safely inferred that a medium size is the best. But this article will be found more particularly noticed under the separate heads of GROUSE, PARTRIDGE, and other shooting, where the size most applicable to each, in the opinion of the author, is pointed out.

The following is pretty nearly correct as

regards the number of pellets of shot in an ounce :—

No. 10 about 1,700 in one ounce.

9	1,000	ditto.
8	600	ditto.
7	350	ditto.
6	270	ditto.
5	230	ditto.
4	180	ditto.
3	130	ditto.
2	110	ditto.
1	80	ditto.
B	75	ditto.
B B	60	ditto.
A	50	ditto.
A A	40	ditto.
A A A	32	ditto, the largest drop-shot.

Shot of larger size than that specified in the above table is cast in moulds, and scarcely comes within the catalogue of a game-shooter's necessities.

SHOT-BELTS AND SHOT-POUCHES.

A BELT is more convenient to carry than a pouch, inasmuch as the weight of the shot is distributed to easier advantage round the body or across the shoulder, than when carried in a lump in the shot-pouch. If the shooter has an attendant to carry his shot, two or three steel

or brass shot chargers to carry in the waistcoat pocket will be all the sportsman need to trouble himself in carrying, and these will be found very handy in loading, particularly if the attendant should happen to be lagging behind. When empty, they can be easily refilled as occasion may offer.

When a shot-belt or strap requires to be slung about the sportsman, it should be suspended from the *left shoulder*, that no portion of it may be in the way on bringing the gun to the other shoulder.

CARTRIDGES.

WHEN game is wild the wire or patent cartridge is invaluable. In the winter of 1849-50 I made a number of experiments with the patent cartridge, to determine, as far as practicable, what size of shot best answered my purpose. My target was a deal board, about fourteen or fifteen inches by twelve in size, and half an inch in thickness. After firing a great many times with No. 5 at sixty yards, I found that the average number of pellets striking the board was nineteen : of these, some eight or nine went completely through. With No. 2

the number averaged thirteen, and all completely perforated the board.


Now, in an ounce of No. 5 shot there are about 230 pellets ; in an ounce of No. 2 about one-half that number ; and thus it would appear that the larger shot is to be preferred, as striking the object with a fourth greater weight of metal ; the only matter for consideration being whether the No. 5, by carrying closer, might not have greater effect in shooting at game. A pistol bullet will kill as effectually as a canon ball ; but will not, unless it strike a very vital part, cause death so suddenly. A speedy death for his victim is desired by the sportsman ; therefore is the larger shot to be preferred ? On the other hand, it may be urged that with small shot there is a greater chance to break a wing. I don't like breaking wings, or legs either, when the other part of the body is untouched ; and certain I am that any genuine disciple of the trigger would much rather see his mark escape altogether than have the unpleasant scramble of securing a wounded bird, unless he has a well-trained retriever at his heels. Besides, it often happens (though not when game is wild) that, in seeking a

winged bird, fair shots present themselves so unexpectedly that they are missed.

Small leather cases may be had in which to carry the cartridges (which are apt to break if carried loose in the pocket) ; these are slung over the shoulder, and are very convenient for the purpose. A small case made of gutta percha, with four or five divisions, to fit into the waistcoat pocket, will be found to answer the same purpose as the leather one.

GUN-WADDINGS.

FOR gun-waddings, soft mill-board is as good a material as can be found. Various kinds are now made, each of which has its distinct recommendations. I have no objection to any except the metallic wadding, which is injurious to the barrel, and dangerous to any one who may be standing on either side of the shooter when the gun is fired. So long as the wadding keeps the charge in its proper place in the barrel, it is sufficient : I could never perceive that it had very much effect on the shooting. The patent elastic waddings are now as much used as any other ; the advantages of which are, that, from a blow with the ramrod, they expand, and fit



tightly and precisely over the charge. If the edges of the wads be slightly tipped with pure salad oil, the gun will shoot better, and be less likely to become foul.

TO LOAD THE GUN.

MANY a man has lost life or limb through carelessly loading his gun. It is, therefore, of the first consideration that attention should be paid by the tyro to this important branch of using the gun.

On loading the gun, first see that the hammers are down upon the nipples, either upon the iron itself or upon an exploded cap. Never load the gun with an unexploded cap on the nipple, nor at full-cock or half-cock. Having looked to these preliminaries, place the heel of the stock outside the left foot, with the trigger uppermost; grasp the barrel with the left hand; then, with the right, take the powder-flask, draw a charge of powder, *single-handed*, and turn it into the barrel; deposit the flask in the left-side upper pocket of the shooting-jacket; ram a wadding over the powder lightly; then draw a charge of shot, *single-handed*, toss it

down the barrel, and ram a wadding over it, with just sufficient pressure to keep it firm ; deposit the ramrod or loading-rod in its place, lift the gun with the left hand, keeping the muzzle pointing in the air, and so cap the nipple, and the gun is ready for action. In all these movements, the young sportsman should be cautious never for an instant to allow the muzzle of the gun to point towards his head, arms, or any part of his body. When one of two barrels has to be loaded, the ramrod should be put into the loaded barrel during the separate processes of charging with powder and shot, in order that neither charge of the ammunition may be put into the wrong barrel. Hundreds of guns have been burst, and limbs and lives lost, through a careless incaution in putting, by mistake, the charge of powder or shot, intended for the empty barrel, into the one already charged. One of two barrels is generally loaded under the excitement of actual sport, and the fatal error alluded to is too often made. The only proper mode of preventing it is that already suggested, of putting the loading-rod or ramrod, into the loaded barrel whilst the empty one is being charged.

A heavy load is not so effective as a moderate one. For a twelve-bore gun I use two drachms and three-quarters of powder, and an ounce and a-half of shot. For narrower barrels, a corresponding reduction should be made.

THE SHOOTER'S DRESS.

THIS is a subject not irrelevant to the matter in hand. Shooting is frequently attended with excessive fatigue; and therefore, all possible restraint upon the action of any part of the body is to be carefully avoided. If trousers be preferred, hose should be worn with them, knit, to reach from the knee to the ankle, and socks to meet them at the ankle. By adopting this plan, the feet may be kept dry more readily than by any other method, as it is little trouble to carry an extra pair of socks in the shooting-jacket pocket, which are more easy to put on than stockings reaching to the knee, the trousers being readily turned up above the ankle. Beyond the discomfort attending it, wet feet are of little concern to the sportsman, so long as the body is kept in motion; but ill effects arise if, without bodily exercise, wet shoes and

stockings are suffered to dry on the feet of the wearer. Many a sportsman, in the decline of life, bears witness, in the rheumatic pains with which he is afflicted, to the truth of this.

The trousers, to be comfortable, should be loose ; at the same time they must not be of extra width, or they will be unpleasant to wear in the field. Elastic fabric is the best article that can be worn ; the colour of it is altogether immaterial. Woollen is preferable to cotton, though the latter is not to be objected to. Flannel, worn next to the skin, is to be recommended in all cases where exercise is likely to produce perspiration.

The waistcoat should be made with two pockets on each side : these are useful to carry many little articles serviceable in the field,—a couple of steel shot-chargers, a turnscrew, cone-key, dog-whistle, cartridge-case, &c.

Large pockets are necessary in a jacket, more especially when the sportsman is in the habit of taking the field alone : two large game-pockets inside, with three or four outside pockets will be found sufficient. The powder-flask should be carried in the outside pocket on the left-hand side, which will facilitate quickness in loading,

and it will not be in the way on bringing the gun to the shoulder. The fabric of which the jacket is made may be left entirely to the fancy of the wearer. For all purposes there is nothing superior to good moleskin ; but care must be taken that the collar is loose and soft, or the gun may be, in firing, thrown out of its place at the shoulder, and the recoil unpleasantly felt on the arm.

Shoes termed *Bluchers* are more pleasant to walk in than any others. Gaiters may be left to the fancy of the wearer. I never use them myself, on account of the trouble of taking off and putting on.

The best waterproofing for shoes is gutta-percha dissolved in coal-tar naphtha, and laid on the shoe with a brush. It is very adhesive, but will occasionally require renewing. When boots are worn, for wading in snipe-bogs, the solution of gutta-percha, if properly applied, will remain for a considerable time on the leather, so long as the walking is confined to soft ground.

It is difficult to prevent the morning-dew from penetrating to the feet when on the grouse-mountains, or in turnips or potatoes in wet September weather ; but any ill effects from it may

be prevented by changing the stockings immediately the diversion of the day is brought to a conclusion. The solution of gutta-percha, applied to the trousers, from the knee downwards, requires little trouble, and will preserve the legs in some degree from wet.

GENERAL OBSERVATIONS.

To acquire the art of shooting flying, it is necessary that the eye and hand should be in perfect unison. Sportsmen are not unanimous in their opinion whether one or both eyes should be used in taking aim, and I hesitate not to state that I have seen excellent marksmen on both sides the question; or, in other words, I have met with very good shots who did not close an eye when taking aim, and others equally good who did. I uniformly close one eye; but, inasmuch as I have heard more than one shooter, whose opinion well merited attention, decide against such a system, it would appear presumptuous in me to insist upon its superiority. If the rifleman closes one eye in levelling his piece,—if the mechanic does the same in order to ascertain if the level of a piece of wood or metal be correct,—it may be asserted, on the other hand, that the

Indian throws his tomahawk, and the South Sea Islander his spear, with both eyes open ; and, therefore, having taken this very short but candid view of the case, I leave the reader to judge for himself.

In shooting, the head should be kept sufficiently elevated, so as to obtain a fair view of both gun and object.

On approaching a brood of grouse, or a covey of partridges, the first bird which attracts the shooter's attention, if within distance, should be his object ; and he should look at it before he brings the gun up to his shoulder : if it be rising, he should level above it. When the object flies straight, it presents the easiest shot possible ; only avoid shooting below it. When birds rise in a cluster (seldom the case with grouse), an outside object should be selected, and deliberate aim taken. If the aim be steadily taken at one bird, two will sometimes drop (when they are crossing each other).

When a bird crosses at the distance of forty yards, the level should be well up and two feet before it. For shorter distances I leave the shooter to judge for himself. Cross shots are seldom missed by firing too forward.

A bird crossing to the left presents a more easy shot than when it flies to the right ; it is still more difficult when, on rising, it flies directly towards the shooter, in which case he should wait patiently till it has completely passed, when he can act according to circumstances.

If the shooter will attentively consider the subject, he will perceive the act of levelling at game is attended with an obedient inclination or motion of his whole frame (the body sympathising with the sight), which should not be checked till the discharge has been completely accomplished.

Whenever the sportsman approaches the pointing dog, if he feels a little palpitation, an unusual sort of respiration, let him pause till his agitation has entirely subsided ; he should go up to his game as calm and unruffled as a stoic. The sudden spring of the covey, after a pause (which appears to impress something of an *awful* feeling on the tyro), with a tremendous whirring and flutter, the piercing scream of the old cock, and the general confusion, will scarcely fail to produce considerable trepidation in those unused to the business ; but

those who feel anxious to obtain satisfactory proficiency as marksmen, may rest assured that till such time as they have attained sufficient coolness, till they can go up quite calmly, they have not a chance of accomplishing their object.

When shooting in company at grouse or partridges, select an object on your own side; never attempt to shoot across to your friend's side: rather remain inactive if the birds rise thus awkwardly.

When a bird falls, do not move from the spot, nor suffer the dogs to move, till you have reloaded. Even should the bird have run, the time occupied in loading will not render its recovery the less probable; while, if you move, the dogs will do the same—a practice which is sure to render them unsteady.

Those who are anxious to attain proficiency in this delightful art should rather suspect their own lack of skill than lay the miscarriage to the fault of the powder, the shot, the dog, or the gun: unless they can discover the source of a fault they are not likely to correct it.

Never cock both barrels; yet, however ridiculous it may appear, I hesitate not to advise, after having discharged one barrel, to examine

if the other be not cocked, before the butt end of the piece is placed on the ground for the purpose of reloading. It will occasionally happen, particularly on the moors, that after having discharged one barrel indications of another shot are presented; when, without attempting to reload, having one barrel in reserve, you endeavour to obtain it: you do not succeed, and yet, by some means, the second barrel has become cocked—hence the necessity of the caution given above. In letting down the cock allow it to pass the half-cock, draw it back, and feel it home in the tumbler. Further, it is sometimes advisable to try if the charge in the second barrel has moved or become loose from the firing of the first.

Avoid leaning over the barrels whilst loading. Carry the gun with the muzzle upwards: *it should never be carried in a position likely to injure man or beast, should an accidental discharge take place.*

Always consider a gun loaded: never point it, nor suffer it to be pointed, at any living being.

Never beat a bush, &c., with either end of your gun; nor assist your friend with it, nor

allow him thus to assist you in crossing a fence.

If a pellet of shot fall on the ramrod while in the barrel, turn the muzzle downward, push the ramrod aside, and it will roll out.

In shooting with a double gun, the marker should be desired to keep his eye on the bird which falls from the first barrel; the shooter can watch the motions of the others.

Never attempt to fire if the game happen to pass near either man or beast; let there be an intervening space of a dozen yards at least. Never fire near the head of any person, although the muzzle of the gun may be considerably in advance.

When a bird has been struck, and is observed to drop its legs, fly off with an undulating motion, or tower (*i. e.* rise perpendicularly for several yards), keep your eye on the spot where it falls: it will be found dead; it dies in the air, and generally falls on its back. A bird that towers and falls at a distance, beyond a hedge or perhaps two, will often be found nearer than it seems to fall.

If your dogs come to a point at a high hedge, get softly over at some yards' distance; and let

your friend or attendant go to the dogs. Come nearly opposite, and when ready whistle rather than speak.

Do not beat the same ground too frequently, or the game will be apt to leave it.

In boisterous weather beat to windward.

If game be tickle, head your dogs, making a semicircuit for the purpose, and be as silent as possible.

Finally, let it be duly impressed on the mind that as the gun is a very dangerous engine, the utmost care is requisite in the use of it.

GROUSE SHOOTING

Is a diversion for a privileged few, who are able to bear the expenses of renting or keeping a moor ; or for the residents in the immediate vicinity of grouse-mountains. The red grouse are for the most part found on high grounds ; but are not uncommon on low swampy mosses, particularly if encouraged, and they find good feeding ground in such localities. I have seen them in a place called The White Moss, on the banks of the river Duddon, which divides Cumberland from Lancashire : the highest part of this moss is not four feet above the level of the

sea. In many parts of Staffordshire and Derbyshire grouse are to be found. In Yorkshire, Lancashire, Cumberland, and Westmoreland, as well as in Durham and Northumberland, they are plentiful on the moors which are preserved, but are most abundant in Scotland. In the latter place, however, they are said to be rapidly decreasing in number.

In hilly countries the grouse-shooter must calculate upon at least three wet days out of six, on the average, at the commencement of the season, and prepare himself as best he can for this interruption. In September the weather is generally better; but if the birds have been shot at a few days only in August, or have been much disturbed by exercising dogs previous to the season, they will become exceedingly wild, and almost unapproachable by the middle of September. The only chance to bag a few birds in a legitimate way, then, is to visit the moor some fine sunny afternoon about three or four o'clock, with a single steady dog, and a patent cartridge in each barrel. This, of course, can only be done by those resident on the spot.

Even on the opening day, grouse are frequently wild; though occasionally they lie to

be almost trodden on. Many a visitor to the moors (if he candidly acknowledged the truth), would admit that his first day had been an entire blank; nay, more, that he had never had a shot. For one grouse killed on the mountain there are twenty killed over the bottle; and the same remark applies in a great measure to every other kind of game.

However, we will suppose the day fine, birds in tolerable plenty, a good dog (*one is sufficient to hunt at once*), and everything favourable; the shooter will bend his way to that part of the moor where he expects to meet with game, accompanied by a guide, who should be a man well acquainted with the moor. His dog comes upon game;—a steady point is not to be expected, as the birds had most likely commenced running long before the dog got upon the scent—and will begin *footing* it, and not unlikely will *hunt the heel*, as it is termed; that is, will foot up to the place whence the birds had run, whilst they, after running some distance, will take wing, and go noiselessly away down the wind, perhaps unseen. Grouse have particular flights, or, in other words, particular places on the moor to which they generally fly; but they

will, I think, invariably, on rising, go down the wind, though they may afterwards turn up to reach their intended destination. Should the dog take the right track and follow his game, the shooter must keep a good look-out forward. The old cock is sure to be well a-head; and not unfrequently may be seen on the ground, and heard chattering, before he takes wing, to warn ~~his~~ progeny of their danger. Killing the old cock under such circumstances is very desirable, as in that case another shot or two may reasonably be expected before all his chicks go away; but if the old cock leads, all the brood will follow, though several may present fair shots on rising.

When grouse are within a few yards of the shooter they frequently attain their greatest altitude immediately on springing from the ground: and continue *descending* as long as they remain within gunshot.

If the old cock is killed and the brood squandered, the utmost care must be taken to beat every inch of ground near to the spot to which they were marked, as under such circumstances the young ones, I think, *never* run on alighting; consequently they emit but little scent.

Having given the best account possible of the first brood met with, the shooter may go in quest of a second. Experience may, perhaps, have taught him that if his dog foots *down* the wind, it is more than likely game is before him. Similar manœuvres on the part of the birds will be observable in almost every brood that is met with.

Towards afternoon grouse separate, and run a good deal in search of food. At this period they are often found singly, and are not so wild as when a brood is found together. They are intent on satisfying the cravings of appetite, and will permit the near approach of the shooter. They will be very likely to run before the dog a considerable distance before taking wing ; as much as two hundred or more yards occasionally. Taking this last circumstance into consideration, how are we to credit the accounts of the immense numbers of grouse *said* to be bagged in a day? Any practical grouse-shooter is well aware that a grouse will sometimes keep to the ground for twenty minutes after being pointed, running some distance, and then pausing, and again running upon the approach of the dog.

The best method of loading the gun for grouse at the commencement of the season is to have No. 5 in one barrel, and a wire cartridge made up with the same number shot in the other. It is rare for grouse to rise sufficiently near for a successful double shot, unless a wire cartridge be used, at least in one barrel.

It is well to avoid drinking anything whilst shooting. I am no disciple of Father Mathew ; but I know from experience that a single glass of ale, or of spirit-and-water, drank in a morning when on the moors, will do more to prostrate the strength than severe exercise of an hour. If drinking cannot be dispensed with, a mixture of whiskey-and-water — fair half-and-half — is what I should recommend in preference to anything else. Weak drinks, or cold ones, will be apt to produce cramp in the stomach.

If grouse-shooters go in company they should keep some two hundred yards apart, and each be attended by a single steady dog. The utmost silence is necessary in grouse shooting.

PARTRIDGE SHOOTING.

WHEN partridges are wild—which they frequently are even in the early part of September

—and are found in turnips or potatoes, they will sometimes run, on being pointed, up to the end of the drills, and rise out of shot. If one does this, it is more than likely the example will be followed by the remainder of the covey. In such case make your dog stand still (if well broke he will do so on your holding up your hand), and go some forty or fifty yards round the spot you suppose them to be ; and when opposite your dog advance cautiously to meet him. You will thus be able to approach your game within proper distance ; and the manœuvre will probably cause the remaining birds to lie.

On no account be in a hurry to quit a piece of turnips, or any rough ground into which birds may have been driven. If you know the number of individuals in the covey when first sprung, you may have a tolerable idea how many you have about you ; and do not give up your search until all are accounted for. Young birds will lie like stones, to be almost trodden on ; and, however good your dogs may be, their extraordinary olfactory powers are occasionally baffled, especially on a sultry day.

Do not be hasty in firing when you find birds

a second or a third time, or it is more than likely you will expend both barrels on two or three out of distance, and have the mortification of having several fair shots presented whilst your gun is empty and you are in the act of re-loading. In such situations good dogs are of importance; but more than two hunted at one time will be found prejudicial to diversion.

Early in the morning partridges are often found in second crops of clover, as long as the clover remains unmown; attracted, no doubt, by the number of moths and other insects to be met with therein. Indeed, so long as insect food is procurable, these birds eat very little corn, and resort to standing corn principally for shelter. That partridges are not fond of standing corn is verified by the fact that if there be an acre or two of stubble, and a quantity of grain uncut, all the birds in the neighbourhood, or nearly all, will be found in the stubble.

There is no great advantage to be derived from taking the field very soon in the morning. The birds on leaving their "roost" or sleeping-place, which they do very early (frequently before break of day), separate in search of insects; but do not like to run much, owing to

the heavy dews which prevail in September, and consequently they are on the alert upon the approach of the dog, and often fly, without running at all, upon the least noise. Nine o'clock is time enough to take the field; and though good diversion may be had occasionally before that hour, it must be considered as an exception, not the rule.

Birds locate themselves differently, according to the countries in which they may be found. For instance, in the hilly parts of our northern counties, mountain breasts (*i. e.* the sides of the mountains) exposed to the sun and covered with fern are favourite places of resort; here the birds find abundance of insect-food, and will even feed on the buds of groundsel and other plants found growing amongst the fern. In the season of 1849 I shot three brace of partridges on the side of Woodland Fell, just above Coniston Lake; and, surprised to find birds at such a distance from corn-fields, or, indeed, from any cultivated ground, I was curious enough to examine the crops of those I had killed, and found them filled with the buds just mentioned. On subsequent occasions I found birds on other parts of this Woodland Fell near to cultivated

land, and felt convinced, from their mode of flight, that the sides of the Fell were their chosen places of abode, in preference to the corn-fields.

At the commencement of the season No. 7 shot may be large enough, No. 6 after the first week, and subsequently, as the birds become stronger, No. 5, or the patent cartridge. I used No. 7 shot for some years throughout the season, but have now substituted a larger size; reasons for which will be found under the head SHOT, page 40.

Towards the end of September or beginning of October, when the harvest is pretty well got in, partridges spread themselves over the stubbles, at a considerable distance from each other, towards the decline of day; and, with a steady dog, good shooting for an hour or two may be had. On such occasions they run a long way on being pointed, and generally get up singly.

In November and December these birds unite in packs, and become, as is well known, exceedingly wild, and strong on the wing. But, even at this period of the year, if they can be driven into cover they are approachable. In countries where there are coppice woods—in the Lake district, for instance—they invariably, on being

disturbed, seek the shelter of those woods, where pursuit, owing to the peculiar habits of the bird, is out of the question, and pointers absolutely useless. At this period of the year there is generally other work for the shooter. I therefore pass on to

PHEASANT SHOOTING.

PHEASANTS are beautiful ornaments of our woods, but do not afford that super-excellent diversion which the inexperienced imagine. The glittering beauties of the cock and his splendid train, amongst other spoil, impart a noble appearance to a well-filled game-bag ; but the pursuit is tame and insipid compared with that of wild-fowl, woodcock, or grouse shooting. Pheasants are frequently met with when partridge shooting, and, on unpreserved land, are often shot by pot-hunters before the commencement of October, who pull out the tails, and call them October partridges. So long as they can, pheasants will remain sheltered by the farmer's crops, in which they are—to give them a mild name—destructive vermin. But it will tend to check their ravages amongst corn, if sunflowers are planted in the hedges, of the

seeds of which they are very fond. In the early part of the season the young birds are easily killed, and the same shot as that used for partridges will answer every purpose.

During the fall of the leaf, pheasants stray from the best preserves and ramble to a great distance ; but this rambling disposition does not continue longer than a fortnight—such as escape returning to the woods in the vicinity of which they were bred. In cover shooting, the pheasant, on rising—the cock especially—will spring up like a skyrocket, and, on such occasions, is often missed if fired at before he clears the intervening trees. Indeed, pheasants are often missed in cover-shooting ; but more owing, I think, to the obstructions presented to the course of the shot than anything else.

Pointers should never be used in cover. Strong spaniels, taught to retrieve, are to be preferred, as the pheasant is often unwilling to rise, and runs before pointers, frequently in such a direction that a tree, or other obstruction intervenes between itself and the shooter before it takes wing ; whilst the eager questing of spaniels will force the bird off the ground at once. Pheasants are never wild.

WOODCOCK SHOOTING.

THE character of woodcock shooting varies according to the locality in which the bird is found. In the Isle of Man, where there is not much cover, woodcocks are found plentiful amongst the ling on the mountains, and are sought, as grouse are, with setters or pointers; the best shooting being obtainable in November and the latter end of February, or commencement of March. The hills of the Isle of Man, being of considerable height, are chosen as resting-places by woodcocks during their migrations, and, at the periods I have mentioned, occasionally afford good shooting. Of course, flushed in the open, and most likely fatigued with a long flight, the woodcock is easily shot. There are woods in this island famed for cocks—the plantations at Ingebreck, for instance—and rough glens, such as Laxey Glen, where they sometimes abound; and, were it not for an obnoxious game law, obtained by a party clique in defiance of public opinion some years ago, the Isle of Man would be a desirable residence for the sportsman, there being no scarcity of snipes, and landrails are in great plenty, as well as good fishing.

Woodcocks visit the mountainous districts of Wales and Cumberland in great numbers. Thwaite's Yett, a mountain farm, the property of a worthy yeoman named John Troughton, situate within a few miles of the mountain Black Combe, is remarkable as being the earliest resort of cocks on their arrival in Cumberland. There is a good deal of rough broken ground intermixed with stunted brushwood upon the farm; and its situation near the mountains and the sea is, no doubt, the cause of woodcocks being found there earlier than any place in the immediate vicinity.

It is generally supposed that the best cock-shooting is obtained at the time the moon is at the full; and every writer whose observations on the subject have fallen under my notice coincides in this opinion. But the idea is altogether erroneous. Whenever there is sufficient light for the woodcock to feed in the twilight, at morning or evening, he will leave the cover, which is his retreat by day, for the open ground in the neighbourhood. During the full moon he remains all night, and frequently all day, on the open moors and commons, and does not return to the woods; but in the dark moon, as

he has not time to satisfy the cravings of appetite whilst there is sufficient light (for some degree of light he must have), he invariably returns to those retreats where he is generally found, and continues feeding for the most part until his hunger is appeased ; and at such times he is, like all other game, the most approachable. The woodcock's habits in this respect are well known to the residents in the Fells, who, in some seasons, catch great numbers by means of *springs* set on the exposed parts of the mountains near to the places where these birds resort.

Any one, or any dozen engravings of woodcock shooting, would fail to give a very comprehensive idea of a diversion which presents a greater variety than any other kind of field sport. A woodcock will at times go away with the swiftness of the wind ; again he will rise with all the whirring of the partridge ; and again will fly with the noiseless wing and sluggish motion of an owl. You never know how to have him ; and it is this very uncertainty that gives such uncommon zest to the pursuit. Generally speaking, it may be taken for granted that a woodcock flushed at the top of a wood

will, as soon as he clears the tops of the trees, dart downwards and present, under any circumstances, a most difficult shot: if the shooter be above him, he is out of sight in an instant; if below, there is nothing for it but to fire at him as he approaches; for if suffered to pass, his rapidity of flight is such that a successful shot, to say the least of it, is a mere chance. If flushed at the lower part of the wood (all the woods in the Fells are situated more or less on declivities) he will fly along the bottom, and then the business is not so difficult. If flushed in the middle of a wood he will frequently be too far off for the shooter to reach him, and must be marked and flushed again.

There are two or three varieties of the woodcock: the largest kind weigh, on an average, twelve to fourteen ounces, the smallest from nine to ten or eleven—the fatness, or otherwise, of the bird causing a difference of an ounce or two. Considerable variation will likewise be found in their plumage; but this is matter more relevant to the naturalist than the sportsman. Generally speaking, a fat bird is, like any other fat animal, lazy; and this applies particularly to the woodcock; but the smaller of

this long-billed tribe are invariably swifter on the wing and more difficult to shoot than the larger kind.

The best shot to be used is No. 4; at any rate the shot should not be smaller than No. 5, for a large shot will cut off a small twig or branch of a tree, and still retain sufficient strength to kill, whilst a small one will expend its force by coming in contact with such an obstruction. It is needless to add that it will often be necessary to fire at a cock through thick cover, or the chance of a shot will be lost. My original opinion on the best size of shot to be used, generally, in the pursuit of game has undergone great change during the five-and-twenty or thirty years I have been a shooter. In earlier life I preferred small shot; I am now convinced that rather large shot is the best. I would not use smaller than No. 5 or larger than No. 3, using the latter with a wide-bored gun, the former with a narrow one.

I apprehend that the principal food of the woodcock is the larvæ of insects, or their eggs, which, deposited during the ephemeral existence of these creatures of a day, remain in a state of inactivity in the decayed vegetation until

warmed into life by the succeeding summer's sun. The myriads of flies in marshy grounds, as well as in extensive woods, seem to warrant such a supposition.

A difference of opinion will be found to exist as to the best kind of dog for the pursuit of the woodcock. A valued friend, who resided at Taynish House, by Lochgilphead, in Argyleshire, in one of his letters to me, observes: "I think that more cocks may be *killed* with one or two steady pointers than with spaniels—with the latter you will find more birds; with the former you will have the better diversion." During the season of 1849–50 this gentleman killed with his own gun upwards of two hundred and fifty cocks. His opinion is entitled to great attention. There is one thing to be observed, however: if pointers are much used in cover, they are apt, afterwards, to become unruly and wild on the moors or open grounds. Excellent diversion may be had if you can ascertain the time when foxhounds draw the covers in your neighbourhood. With a good retriever and a marker you will, on such occasions, have a capital chance of filling a bag. When it is necessary to beat the woods without the assist-

ance of a pack of hounds, I am no advocate for many dogs. Such as are used should possess the most exquisite sense of smell, and one at least should have been taught to retrieve. Most spaniels take to retrieving naturally. The same remark will apply to setters; and it is not a difficult matter to teach pointers to do the same; but a pointer or setter suffered to retrieve is apt to break away on the shot—a thing of no consequence whatever in woodcock shooting, but productive of much mischief in the pursuit of the partridge or grouse.

WILD-FOWL SHOOTING.

To attempt giving full directions for pursuing the splendid diversion of wild-fowl shooting in all its endless and interesting varieties, would far exceed the limits of this little work; in proof of which I will simply refer the reader to Mr. Folkard's elaborate work, "The Wild-Fowler," a costly and beautiful volume of 400 pages, recently published, treating fully on the subject, and leaving no branch of the art of wild-fowling—historical or practical—unexplained: this masterly treatise received the well merited approval of every one who has seen it. Indeed,

it is the only work which can be relied on in reference to wild-fowling; and its pages are so full of interesting and instructive matter, written in so pleasant, though learned a style, that it is, with sound confidence, recommended to the notice of the reader.

Wild-fowl shooting, with the shoulder-gun, is the only branch of this varied diversion which applies specially to these pages; to that one branch I will therefore confine my remarks. A double gun of ten or twelve bore is the proper weapon for wild-fowl shooting on the land; and No. 3 or 4 is the proper sized shot to use whether with cartridge or loose charge. The advantage of a double-barrelled gun is, that when a duck gets up from the moor the mallard is generally close by; and they offer so fair a mark, and fly so straight and heavy, that no sportsman ought to miss them when within range. It is of no use attempting to mark wild ducks on land; their flight is always of such extent, that following them is out of the question. Teal, on the contrary, do not fly far when flushed; but generally follow the stream, and pitch a few hundred yards higher up.

There are very many methods of pursuing

the fine sport of wild-fowl shooting on the land—such as flight-shooting, coast-shooting, fen-shooting, stalking, &c. &c., all of which, among scores of others, can only be thoroughly understood or appreciated by reference to the work referred to.

After using a gun by the sea-side, or on saline marshes, it should be well wiped with a dry cloth immediately on returning home, and before putting it aside it ought to be wiped over with an oiled flannel. Unless these precautions are attended to the sportsman will find on next using his gun that it has become much rusted and injured, both in appearance and reality. The same observations apply whenever the gun has become wet, whether through exposure to rain, or fog, or otherwise. Indeed, to keep a gun in good order it should always be wiped dry and rubbed over with an oiled flannel before being put away, though only for one night. A damp wall rusts gun-barrels in a few hours.

SNIPES SHOOTING.

THE snipe is regarded as a difficult bird to hit. He flies swiftly, but does not so soon get out of reach as a partridge or grouse, inasmuch as he

twists about a good deal on rising. Snipes found in the bogs where they breed, and where they generally remain, unless forced to migrate by rain or frost, fly very differently when on their rambles than when they are met with at home. In the former case they are on the alert and wild; in the latter they seldom fail to lie well, they also fly more steadily. It is worthy of remark, that snipes, when they rise in *wisps*, as they are frequently seen to do, always squander when they alight. They also fly *up* the wind, and will never for many yards have it blowing in the tail.

On a windy day, when circumstances will permit, it is best to pursue these birds *across*, and not *down*, the wind, as generally recommended. If it be blowing hard, the bird will fly down the wind when disturbed by the shooter, but will turn as soon as he can; it frequently happens, however, that he is carried out of gunshot down the wind before he *can* turn, and he will not *decrease* the distance between himself and his enemy when he turns to breast it. By hunting across the wind cross shots may for the most part be obtained, as the bird will fly against it immediately on rising.

Snipe shooting is not easy work. The walking is bad, and waterproof boots to reach the knee ought to be worn. Neither is it easy work for a dog ; his game is found upon ground which, besides having a wet bottom, is generally covered with tangled rushes or long grass, and, moreover, very uneven.

The best shot for snipes is No. 8 ; but as teal are occasionally met with in snipe bogs, on that account, perhaps, No. 7 is preferable. Snipes are disabled from rising a second time by a very slight wound, though their length of wing will frequently carry them a long distance after being struck. Under such circumstances their flight is straight, and, if marked, they are not difficult to find.

HARES, RABBITS, LANDRAILS, ETC.

THERE are many other objects besides those just enumerated which will present themselves to the sportsman during a season's peregrinations. The landrail is frequently met with when partridge shooting in September ; and at that period is well worth killing, being very fat, and, moreover, in the opinion of some epicures, the most delicious bird that can be brought to table, not

excepting even the woodcock. At the latter end of the year the landrail is not so pertinacious in keeping the ground as in spring or summer. Dogs will point it, but the point is not so steady as at legitimate game ; and a little experience will soon enable the shooter to discover when his dog has a landrail before him.

The water-hen or moor-hen is also worth shooting ; but its shy and retired habits, and reluctance to fly, render it difficult to find, except dogs are specially trained for the purpose. Such dogs would, of course, be productive of much mischief in regular shooting.

Hares, in strictness, ought never to be shot ; they are only legitimate sport for coursing and hunting : when shot they are cumbersome to carry, and often fill the pocket or game-bag with blood. It is best, perhaps, to leave them with the farmer upon whose land they happen to be shot, which creates a kindly feeling, and a wish to see you again. Should it happen that the shooter is without an attendant, and carries a hare in his pocket, it is more than likely that he will miss many birds in consequence of having this uncomfortable and unwieldy weight dangling round his hips. Under such circum-

stances the gun *cannot* be brought up to the shoulder as it ought to be, or held there with the certainty of making a successful shot. Hares should be hit well forward ; if going straight away the tips of the ears should be the mark aimed at, as if hit on the rump they will most likely only run the faster, unless a leg be broken. Chasing a wounded hare has been the ruin of many a fine young dog ; it is best, therefore, if not pretty sure of killing dead, to let her go away altogether.

Most of the remarks relative to hares are equally applicable to rabbits. The latter are, however, best confined to a warren ; for they are a sad nuisance when numerous in the enclosures. They are not worth the sportsman's attention, and are more destructive to the farmer than all other game put together.

THE GAME LAWS.

THE statute 1 and 2 William IV. chap. 32, passed October 5th, 1831, having recited "that it is expedient to repeal the following statutes, or so much thereof as is expedient; viz.:—

"Statute 13 of Richard II., sect. 1, chap. 13, as far as it relates to persons having or keeping any greyhound, hound, or other dog, to hunt; or using ferrets, pegs, nets, harepipes, cords, or other engines, to take or destroy hares, conies, or game.

"Statute 22 of Edward IV. chap. 6, as far as it relates to having any mark or game of swans.

"Stat. 11 Hen. VII. c. 17.

"Stat. 19 Hen. VII. c. 11.

"Stat. 14 and 15 Hen. VIII. c. 10.

"Stat. 25 Hen. VIII. c. 11.

"Stat. 33 Hen. VIII. c. 6.

"Stat. 23 Eliz. c. 10.

"Stat. 2 James I. c. 27.

"Stat. 7 James I. c. 11.

"Stat. 22 and 23 Charles II. c. 25.

"Stat. 4 William and Mary, c. 23.

"Stat. 5 Anne, c. 14.

"Stat. 9 Anne, c. 25.

"Stat. 8 Geo. I. c. 19.

"Stat. 10 Geo. II. c. 32.

"Stat. 26 Geo. II. c. 2.

"Stat. 28 Geo. II. c. 12.

"Stat. 2 Geo. III. c. 19.

"Stat. 13 Geo. III. c. 55.

" Stat. 13 Geo. III. c. 80.

" Stat. 39 Geo. III. c. 34.

" Stat. 43 Geo. III. c. 112.

" Stat. 48 Geo. III. c. 93.

" Stat. 50 Geo. III. c. 67.

" Stat. 58 Geo. III. c. 75.

" Stat. 59 Geo. III. c. 102.

" And all statutes, continuing or perpetuating any of the aforesaid statutes or parts thereof, so far as relates to the continuing or perpetuating of the same respectively."

The preamble of the Act then enacts the following provisions, in lieu of those of the repealed statutes.

The second section of the Act enacts that the word "game" shall include hares, pheasants, partridges, grouse, heath or moor game, black game, and bustards.

By sect. 3, persons killing or taking game, or using any dog, gun, net, or other engine or instrument for the purpose, on Sunday or Christmas-day, shall forfeit any sum not exceeding £5; and persons killing or taking any partridge between February the 1st and September the 1st; or any pheasant between February the 1st and October the 1st; or any black game (except in Somerset or Devon, or in the New Forest, Southampton) between December the 10th and August 20th; or in Somerset, Devon, or the New Forest, between December the 10th and September the 1st; or any grouse between December the 10th and August the 12th; or any bustard between March the 1st and September the 1st, shall forfeit for every head of game so killed or taken, any sum not exceeding £1, with costs of conviction. And persons putting, or causing to be put, with intent to destroy or injure any game, any poison

or poisonous ingredient, on any ground, whether open or enclosed, where game usually resort, or in any highway, shall forfeit any sum not exceeding £10, with costs of conviction.

Section 4 enacts that if any person, licensed to deal in game by this Act, shall buy or sell, or knowingly have in his house, or possession, or control, any bird of game after the expiration of ten days (one inclusive and the other exclusive) from the respective days in which it is unlawful to kill or take such birds of game; or if any person, not being licensed to deal in game, shall buy or sell any bird of game after the expiration of ten days (one inclusive and the other exclusive) from the respective days on which it is unlawful to kill or take the same, or shall knowingly have in his house, possession, or control, any bird of game (except birds of game kept in a mew or breeding place) after the expiration of forty days (one inclusive and the other exclusive) from the respective days on which it is unlawful to kill or take the same, shall forfeit for every head of game so bought or sold, or found in his house, possession, or control, any sum not exceeding £1, with costs of conviction.

But the 5th section provides, that this Act shall not affect or alter the existing laws respecting certificates for taking or killing any game whatever, or any woodcock, snipe, quail, or landrail, or any conies, but that such annual game certificates shall be taken out as before. And by the 23rd section, if any person shall kill or take any game, or use any dog, gun, net, or other engine or instrument, for the purpose of searching for or killing or taking game, without a certificate, he shall forfeit for every offence any sum not exceeding £5, with costs of conviction: and such penalty imposed by this Act shall be deemed a

cumulative penalty to any penalty to which the person so convicted may be liable under any statute or statutes relating to game certificates.

By section 6, persons obtaining annual game certificates may kill and take game, liable to any trespass committed by them in search or pursuit of game. But no game certificate on which a less duty than £4 0s. 10d. has been paid shall authorize any gamekeeper to kill or take any game, or to use any dog, gun, or net, or other instrument, for the purpose of killing or taking game, except within the limits included in his appointment as gamekeeper; but that if any such gamekeeper shall kill or take game beyond such limits, he may be proceeded against as if he had no certificate.

The 7th section provides, that in all cases where any person shall occupy any land under any lease or agreement made before the passing of this Act, except in the cases hereinafter excepted, the lessor or landlord shall have the right of entering upon such land, or of authorizing any other person or persons who shall have obtained an annual game certificate to enter upon such land for the purpose of killing or taking game thereon; and no person occupying any land under any lease or agreement, either for life or for years, made previously to the passing of this Act, shall have the right to kill or take the game on such land, except where the right of killing the game upon such land has been expressly granted or allowed to such person by such lease or agreement; or except where, upon the original granting or renewal of such lease or agreement, a fine or fines have been taken; or except where, in a case of a term for years, such lease or agreement has been made for a term exceeding twenty-one years.

But the 8th section provides, that nothing in this

Act shall authorize any person seised or possessed of, or holding any land, to kill or take the game, or to permit any other person to do so, in any case where by deed, grant, lease, or any written or parole demise or contract, a right of entry upon such land for the purpose of killing or taking the game, has been or shall be reserved or retained by, or given or allowed to any grantor, lessor, landlord, or other person whatever; and that nothing in this Act shall defeat or diminish any reservation, exception, covenant, or agreement already contained in any private Act of Parliament, deed, or other writing, relating to the game upon any land; or in any manner prejudice the rights of any lord or owner of any forest, chase, or warren, or of any lord of any reputed manor, lordship, or royalty, or of any steward of the crown of any manor, lordship, or royalty appertaining to the king.

And the 9th section provides, that nothing in this Act shall in any way alter or affect any of the king's forest rights, or of any person entitled to any right or privilege under them, or the rights or privileges of any person holding under any grants or purchases from the crown.

The 10th section also provides, that the Act shall not give to any owner of cattle gates, or rights of common, any interest or privilege which he did not possess before the passing of this Act; but the rights and privileges in such wastes or commons shall remain as they did before the passing of this Act.

The 12th section enacts, that where the lessor or landlord has reserved to himself the right of killing game upon any land, he may authorize other persons, having obtained annual game certificates, to pursue and kill game thereon.

But where the right of killing the game upon any

land is by this Act given to any lessor or landlord, in exclusion of the right of the occupier of such land, or where such exclusive right has been, or shall be, specially reserved by or granted to, or belongs to the lessor, landlord, or any other person than the occupier, then, if the occupier shall pursue, kill, or take any game upon such land, or give permission to any other person so to do, without the authority of the lessor, landlord, or other person having the right of killing game on such land, such occupier shall forfeit, for every head of game so killed or taken, any sum not exceeding £2, with costs of conviction.—Sect. 12.

By section 13, lords of manors, &c., may appoint gamekeepers within the same, and authorize them to seize and take all dogs, nets, and other engines and instruments for the killing or taking of game from uncertificated persons within the limits of such manors.

By section 14, lords of manors, &c., may grant such deputations to persons acting as gamekeepers, or employed in any other capacity by other persons.

The 15th section empowers persons possessed of lands in Wales of the clear annual value of £500, whereof he shall be seised in fee or as of freehold, or to which he shall otherwise be beneficially entitled in his own right, to appoint gamekeepers: but the 16th section requires all appointments of gamekeepers to be registered with the clerk of the peace.

The 17th section enacts, that every person who shall have obtained an annual game certificate may sell game to persons licensed to deal in game according to this Act; but that no gamekeeper on whose certificate a less duty than £4 0s. 10d. has been paid shall sell any game, except on the account and with the written authority of his employer; and that if he does he may be proceeded against as if he had not had a game certificate.

By the 18th section, justices of the peace shall hold special sessions in the present year, between the 15th and the 30th days of October; and in every succeeding year in the month of July, for granting licenses to deal in game to such persons as are householders or keepers of shops or stalls, and not being innkeepers or victuallers, or licensed to sell beer by retail, or being owners, guards, or drivers of mail coaches, or other vehicles employed in the conveyance of the mails of letters, or of stage coaches, stage waggon, vans, or other public conveyances, or being carriers or higglers, or being in the employment of any such persons; which licenses shall empower the persons to whom they are granted to buy game at any place from any person who may lawfully sell game by virtue of this Act; and also to sell the same at one house, shop, or stall only, kept by the licensed person; provided that every person, while so licensed, shall affix to some part of the outside of the front of his house, shop, or stall, and shall there keep a board having thereon his christian and surname, and the words "licensed to deal in game." Licenses granted during the present year to continue in force to July 15, 1832; but such as are granted in any succeeding year, to continue in force for the period of one year next after the granting thereof. But by section 26, innkeepers and tavern-keepers may, without any license, sell game for consumption in their own houses, such game having been procured from some person licensed to deal in game by virtue of this Act. And, by section 21, persons being in partnership, and carrying on their business at one house, shop, or stall, only require but one license. Licenses become void on conviction of any offence against this Act.—Sect. 22.

Persons licensed to deal in game under this Act must annually, and during the continuance of their license, obtain a certificate on payment of a duty of £2 to the collector or collectors of the assessed taxes, from whom they shall receive a receipt on payment of one shilling; which receipt they shall get exchanged for a certificate under this Act, in like manner as receipts for the duty in respect of killing game are exchanged for game certificates; and if any person obtaining a license under this Act shall purchase or sell, or otherwise deal in game as a licensed dealer, before he shall obtain a certificate in exchange for such receipt, he shall, for every offence, forfeit £20.

The collectors are to make out lists of persons who have obtained licenses to deal in game, and are to produce the same to all persons making application at seasonable hours to inspect them, on payment of one shilling.—Sect. 20.

By sect. 25, if any person not having obtained a game certificate (except such person be licensed to deal in game according to this Act) shall sell, or offer for sale, any game to any person whatever; or if any person authorized to sell game under this Act shall sell, or offer for sale, any game to any person whatever, except a person licensed to deal in game, he shall forfeit for every head of game so sold, or offered for sale, any sum not exceeding £2, with costs of conviction.

And if any person, not being licensed to deal in game according to this Act, shall buy any game from any person whatever, except from a person licensed to deal in game according to this Act, or *bonâ fide* from a person affixing to the outside of the front of his house, shop, or stall, a board purporting to be the board of a person licensed to deal in game,

he shall for every head of game so bought forfeit any sum not exceeding £5, with costs of conviction.
—Sect. 27.

And if any person, being licensed to deal in game according to this Act, shall buy or obtain any game from any person not authorized to sell game for want of a game certificate, or for want of a license to deal in game; or if any person, being licensed to deal in game according to this Act, sell, or offer for sale, any game at his house, shop, or stall, without such board as aforesaid being affixed to some part of the outside of the front of such house, shop, or stall, at the time of such selling or offering for sale; or shall affix, or cause to be affixed, such board to more than one house, shop, or stall, or shall sell any game at any place other than his house, shop, or stall, where such board shall have been affixed; or if any person not being licensed to deal in game according to this Act shall assume or pretend, by affixing such board, or by exhibiting any certificate, or by any other device or pretence, to be a person licensed to deal in game, he shall, for every offence, forfeit £10, with costs. (Sect. 28.) But the buying and selling of game by persons employed on the behalf of any licensed dealer in game, and acting in the usual course of his employment, and upon the premises where such dealing is carried on, is a lawful buying and selling in cases where the same would have been lawful if transacted by the licensed dealer himself. And licensed dealers may sell any game sent to them to be sold on account of other licensed dealers.
—(Sect. 29.)

The 30th sect. reciting, that, as after the commencement of this Act game will become an article which may be legally bought and sold, and that it is therefore just and reasonable to provide that sum-

many means should be provided for protecting it from trespassers, enacts, that any person committing trespasses, by entering or being in the daytime upon any land, in search or pursuit of game, woodcocks, &c., shall forfeit any sum not exceeding £2, with costs of conviction ; and that if any persons, to the number of five or more together, commit any trespass, by entering in the daytime upon any land in search of game, &c., each of them forfeit not less than £5, with costs of conviction ; the leave and license of the occupier of the land so trespassed upon shall not be a sufficient defence in any case where the landlord, lessor, or other person shall have the right of killing game upon such land by virtue of any reservation or otherwise ; but that such landlord, &c., shall, for the purpose of prosecuting for each of such two offences, be deemed to be the legal occupier of the land ; and that the lord or steward of the crown of any manor, lordship, or royalty, shall be deemed to be the legal occupier of the land of the wastes or commons within such manor, lordship, &c.

The 31st sect. enacts, that if any person shall be found upon any land, or upon any of the crown forests, parks, chases, or warrens in the daytime, in search or pursuit of game, or woodcocks, snipes, quails, landrails, or conies, any person having the right of killing the game upon such land, by virtue of any reservation or otherwise as is provided for by this Act, or the occupier of the land (whether there shall or shall not be any such right by reservation or otherwise), or any gamekeeper or servant of either of them, or any person authorized by either of them, or for the warden, ranger, verderer, under-keeper, or other officer of such forest, &c., may require the person so found forthwith to quit the land whereon he shall be so found, and also to

tell his name and place of abode ; and if such person, after being so required, refuse to tell his real name and place of abode ; or if he give a description of his place of abode of so general a nature as to be illusory, for the purpose of discovery, the party so requiring his address, or any person acting by his order and in his aid, may apprehend him, and convey him, as soon as conveniently may be, before a magistrate ; and the offender (whether so apprehended or not) shall forfeit any sum not exceeding £5, with costs of conviction. But no person so apprehended shall, on any pretence whatever, be detained for a longer period than twelve hours from the time of his apprehension until brought before a magistrate ; and if he cannot, on account of the absence or distance of the residence of the magistrate, or on account of any other reasonable cause, be brought before a magistrate within such twelve hours, then he shall be discharged ; but may, nevertheless, be proceeded against for the offence by summons or warrant, according to the provisions hereinafter mentioned, as if no apprehension had taken place.

By the 32nd sect., if any persons, to the number of five or more together, shall be found upon any land, or in any of the crown forests, parks, chases, or warrens, in the daytime, in search or pursuit of game, or woodcocks, snipes, quails, landrails, or conies, any of them being armed with a gun, and any of them by violence, intimidation, or menace, preventing, or endeavouring to prevent, any person authorized, as hereinbefore mentioned, from approaching them for the purpose of requiring them, or any of them, to quit the land whereon they shall be so found, or to tell their or his name and place of abode ; every person so offending, and every person then and there aiding or abetting such offender, shall

forfeit for every offence any sum not exceeding £5, with costs of conviction ; which penalty shall be in addition to, and independent of, any other penalty to which any such person shall be liable for any offence against this Act.

And by sect. 39, if any person commit any trespass by entering or being, in the daytime, upon any crown forests, parks, chases, or warrens, in search or pursuit of game, without being first duly authorized, he forfeits any sum not exceeding £2, with costs of conviction.

But the 35th sect. enacts that the aforesaid provisions against trespassers and persons found on any land shall not extend to any person hunting or coursing upon any lands with hounds or greyhounds, and being in fresh pursuit of any deer, hare, or fox, already started upon any other land ; nor to any person *bonâ fide* claiming, and exercising any right or reputed right of free warren or free chase, nor to any gamekeeper lawfully appointed within the limits of any free warren or free chase ; nor to any lord or any steward of the crown of any manor, lordship, or royalty ; nor to any gamekeeper lawfully appointed by such lord or steward within the limits of any manor, &c.

The 36th sect. enacts, that when any person shall be found, by day or by night, upon any land, or in any of the crown forests, parks, chases, or warrens, in search or pursuit of game, and then and there having in his possession any game which shall appear to have been recently killed, any person having a right of killing the game upon such land, by virtue of any reservation or otherwise, as before provided for, or the occupier of the land (whether there shall or shall not be such right by reservation or otherwise), or any gamekeeper or servant of either of them, or any officer, as aforesaid, of any forest, &c.,

or any person acting by the order and in aid of any of the said several persons, may demand from the persons so found the game which may be in his possession; and in case he shall not immediately deliver up the same, may seize and take it from him, for the use of the person entitled to it.

The 34th sect. defines what shall be deemed day-time for the purposes of the Act, namely, from the beginning of the last hour before sunrise to the expiration of the first hour after sunset.

The 24th sect. provides, that if any person not having the right of killing game upon any land, nor having permission from the person having the right, wilfully take out of the nest, or destroy in the nest upon the land, the eggs of any bird of game, or of any swan, wild-duck, teal, or widgeon, or knowingly have in his house, shop, possession, or control, any eggs so taken, he shall forfeit for every egg so taken or destroyed, or found in his possession, any sum not exceeding 5s., with costs of conviction.

The remaining sections of the Act (viz., from 37 to 47 inclusive) provide for the application of the penalties for offences against the Act, the time of the payment thereof, and the periods of imprisonment for non-payment; the form of conviction; the power of summoning witnesses; the time for proceedings, and the mode of enforcing appearance; the appeal, and the venue and proceedings. The 46th section provides that the Act shall not preclude actions for trespass; but that, where any proceedings have been instituted under this Act in respect of any trespass, no action at law shall be maintainable for the same trespass. And the 48th section, that the Act shall not extend to Scotland or Ireland.

From the great injury caused to tenant farmers on some estates, by the over-preservation of hares,

the Legislature has deemed it advisable to sanction their being destroyed by occupiers, much on the same terms long previously permitted in reference to rabbits. For this purpose, a measure was framed, and passed on the 22nd of July, 1848, 11 and 12 of Vic., c. 29, entitled "An Act to enable persons having a Right to kill Hares in England and Wales, to do so by themselves, or persons authorized by them, without being required to take out a Game Certificate." Though not altogether bearing on the gun, it still is sufficiently so to warrant a summary of its provisions here.

The statute commences by declaring that, from the damage which has been, and is continually done, by hares, to the produce of inclosed lands, and the great losses that have thereby accrued, and do accrue, to the occupiers of such lands, it is expedient that persons in the actual occupation of these lands, or the owners thereof who have the right of killing game thereon, should be allowed to take, kill, and destroy hares, without the obtaining of an annual game certificate, or the payment of any duties of assessed taxes which might otherwise be incurred by the use of dog, gun, net, or other engine for that purpose. The Act provides, accordingly, that any persons in actual occupation of inclosed lands, or any owner thereof who has the right of killing game thereon, or any person directly authorized by him in writing according to the form annexed, shall not, for killing hares, be liable to any of the penalties in force by divers laws referring to the duties on game certificates, or by other taxes bearing upon the agents used in killing game. Special mention is made of

48 George III., c. 55,
52 George III., c. 93,
3 and 4 Victoria, c. 17;

in all of which penalties consequent on not taking out a game certificate, or taxes incurred by the use of dog, gun, and net, are repealed, as far as the killing of hares only is concerned, according to the conditions already stated, or more amplified in following sections.

The second section of the Act limits the authority from owner or occupier to one person only, at the same time in one parish, and further enacts that a copy of this authority shall be sent to the Clerk of the Petty Sessions, who shall enter it in a register provided for that purpose; this notice holding good from the time of its date to the 1st of February following, when fresh service will be required. Should, however, the authority be revoked, it is necessary for the owner or occupier so recalling it to send at once notice of such permission being withdrawn to the Clerk of the Petty Sessions.

The following is the form of authority required:—

I., A. B., do authorize C. D. to kill hares on ["my lands," or the "lands occupied by me," as the case may be] within the of [here insert name of the parish or other place, as the case may be]. Dated this day of [here insert the day, month, and year].
(Witness) A. B.

Section the third enacts that persons so authorized to kill hares shall not be liable to any duties of assessed taxes as game-keepers, unless otherwise chargeable.

By section four the privilege of killing hares without a certificate is extended to coursing them with greyhounds, or hunting them with beagles or other hounds. This exemption reaching to all persons joining in the pursuit of them by these means.

Section the fifth protects hares from the laying of poison for their destruction, and from the use of fire-arms or gun of any description by night.

Section six—"the weak place" in the Act—suffers this privilege to be got over by private agreement between landlord and tenant, who may so, "now and hereafter," bind, and be bound; any agreement not to take, kill, or destroy any game upon any lands, debarring the tenant from either himself or by deputy killing hares as otherwise provided by the Act.

The eighth section confines the operation of the measure to England and Wales only, while sections nine and ten are occupied with the usual technical detail of terms, &c.

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